

**ANNUAL INSPECTION REPORT  
ASH POND 2  
JOLIET 29 STATION  
16 OCTOBER 2017**

Pursuant to 40 CFR 257.83(b), Geosyntec Consultants (Geosyntec) performed an annual inspection of Ash Pond 2 at the Joliet Station in Joliet, Illinois (see Figure 1). The inspection included a review of available information regarding the status and condition of the CCR unit, a visual inspection of the CCR unit, including hydraulic and appurtenant structures, and preparation of this inspection report. The visual inspection was performed by Mr. Panos Andonyadis, P.E., on 5 September 2017. A summary of the inspection findings is presented below and in Table 1 following the text.

**1. Changes in Geometry - §257.83(b)(2)(i)**

During September 2016, a localized low-spot in the crest of the southeast embankment was raised approximately 1 foot to prevent overtopping during a 100-year storm event. Development of the plans and specifications were overseen by a licensed Professional Engineer.

**2. Instrumentation – §257.83(b)(2)(ii)**

Geosyntec did not observe and is not aware of instrumentation associated with the hydraulic structures, impoundment embankments, or slope performance related to Ash Pond 2.

**3. Capacity and Impounded Volume – §257.83(b)(2)(iii) through (v)**

The capacity and impounded volume of Ash Pond 2 and estimated depth of impounded water and CCR are presented in Table 1. These volumes and depths were estimated using existing topographic maps and observations made during the 5 September 2017 inspection. The present, maximum and minimum depth of water and CCR in the units are summarized in Table 1.

**4. Structural/Operational Observations - §257.83(b)(2)(vi)**

At the time of the inspection, the weep holes for the southern concrete retaining wall were observed to have accumulated minor amounts of sediment. The weep holes were cleared of sediment in early October 2017. No other features were observed that would be indicative of potential or actual structural weakness in Ash Pond 2. No conditions were observed that are currently, or have the potential to disrupt operation and safety of the impoundments and appurtenant structures.

Ash Pond 2, Joliet Station  
2017 Annual Inspection  
16 October 2017

5. Other Changes – §257.83(b)(2)(vii)

There were no other observed changes that could affect the operation or stability of the units.



*PAL* 10/16/2017  
Panos Andonyadis, P.E.  
Illinois Professional Engineer No. 062-066885

Expiration Date: 11/30/2017

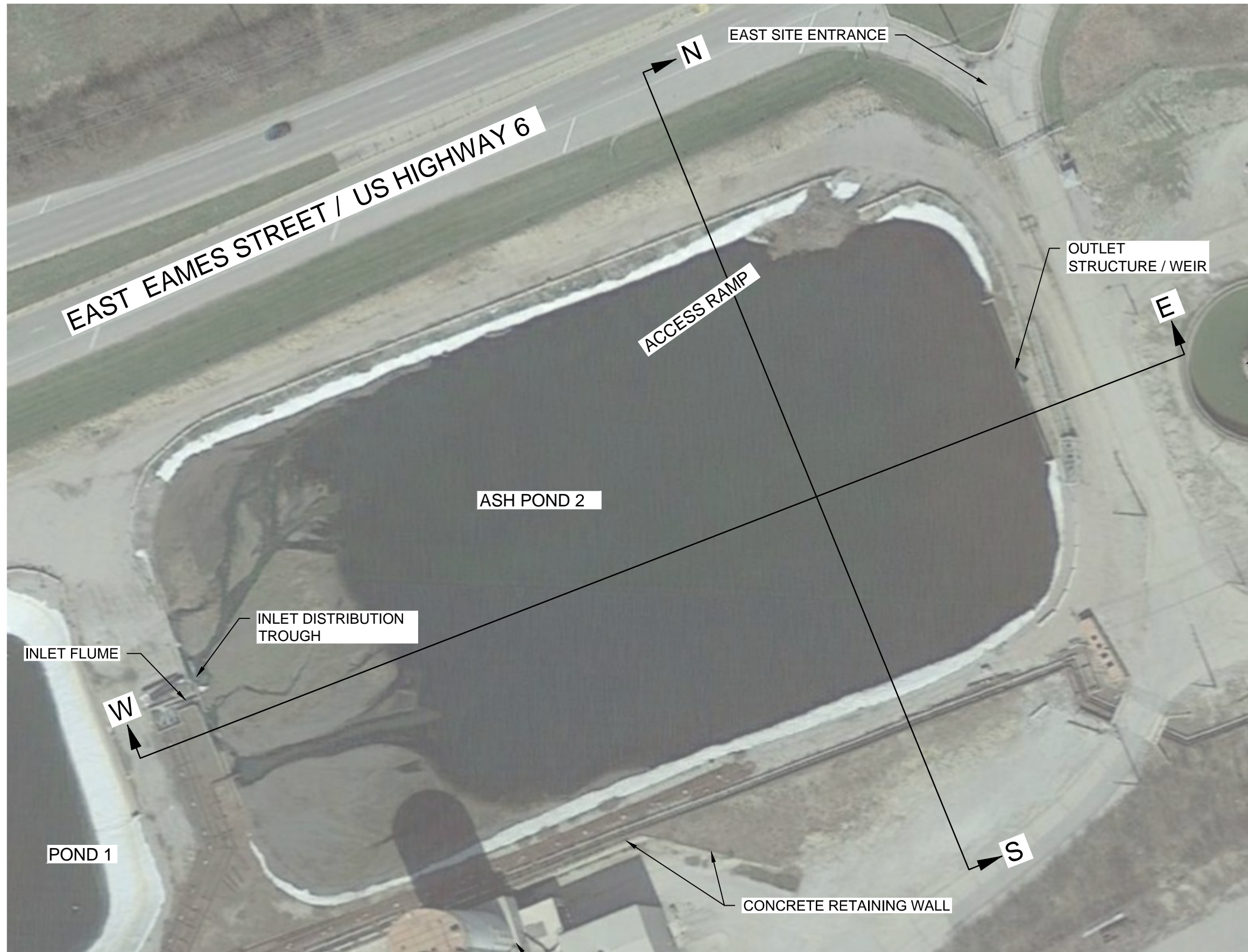
**Table 1: Inspection Summary – Ash Pond 2**

Category	Regulation Reference	Inspection Report Section	Evaluation	Recommended Action
Changes in Geometry	§257.83(b)(2)(i)	4.1	Yes <sup>(1)</sup>	None
Instrumentation	§257.83(b)(2)(ii)	4.2	None	None
Water Depth Estimate <sup>(2)</sup>	§257.83(b)(2)(iii)	4.3	0 feet (min.) 0 to 17 feet (present) 17 feet (max) <sup>(2)</sup>	None
Water Elevation Estimate <sup>(2)</sup>	§257.83(b)(2)(iii)	4.3	+532.85 feet (min.) +532.85 feet (present) +532.85 feet (max)	None
CCR Depth Estimate <sup>(3)</sup>	§257.83(b)(2)(iii)	4.3	0 feet (min.) 0 to 17 feet (present) 17 feet (max) <sup>(3)</sup>	None
CCR Elevation Estimate <sup>(3)</sup>	§257.83(b)(2)(iii)	4.3	+516 feet (min.) +516 feet to +532.85 feet (present) +532.85 feet (max) <sup>(3)</sup>	None
Estimated Storage Capacity <sup>(4)</sup>	§257.83(b)(2)(iv)	4.3	38.4 acre-feet 62,000 cy	None
Impounded Water Volume Estimate	§257.83(b)(2)(v)	4.3	24.2 acre-feet 39,000 cy	None
Impounded CCR Volume Estimate	§257.83(b)(2)(v)	4.3	12.4 acre-feet 20,000 cy	None
Structural/Operational Observations	§257.83(b)(2)(vi)	4.4	None	None
Other Changes	§257.83(b)(2)(vii)	4.5	None	None

Notes:

1. This report assesses changes in geometry since the initial annual inspection (2016). An isolated area in southeastern corner section of embankment was raised approximately 1 foot with 100 cubic yards of engineered fill material in September 2016.

2. This is the estimated minimum and maximum depth of water. The depth of water in the western portion of the pond is estimated to be 0 feet because CCR has mounded above the top of water. The depth of water in the eastern portion of the pond is estimated to be 17 feet because no significant CCR buildup by the outlet weir is assumed. The top of water is at the approximate elevation of the outlet weir, elevation +532.85 feet. No significant fluctuations in water level were noted in weekly inspection reports. The observed water level elevation of +532.85 feet is the same as the previous annual inspection.
3. This is the estimated minimum and maximum depth of CCR. The maximum depth of CCR is estimated to be 17 feet (elevation +532.85 feet) at the western portion of the pond and the minimum is 0 feet (elevation +516 feet) at the eastern portion of the pond, where is no significant CCR buildup by the outlet weir is assumed. No dredging was noted in weekly inspection reports since the last annual inspection. The observed maximum and minimum CCR levels are the same as the previous annual inspection.
4. Total capacity was computed using computer-aided design computation methods based on 2007 topography by Natural Resource Technology (NRT) within the impoundment footprint and a maximum pool elevation of +533.5 feet, based on the estimated lowest top of liner elevation. The storage capacity of the impoundment to a pool elevation corresponding to the top of the discharge weir at +532.85 feet is estimated to be 36.6 acre-feet (59,000 cy).

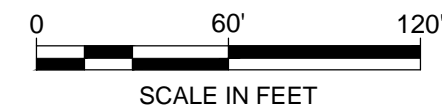


CLARIFIER

SITE PLAN - ASH POND 2  
JOLIET 29 STATION  
JOLIET, ILLINOIS



FIGURE  
1



SCALE IN FEET

AERIAL IMAGE: GOOGLE EARTH  
CAPTURE DATE: APRIL 2017

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